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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,552	07/31/2001	Bing Lin Yang	YKI-0072	4384

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EXAMINER
MACCHIAROLO, PETER J

ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/919,552	YANG, BING LIN
	Examiner	Art Unit
	Peter J Macchiarolo	2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 31 July 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "61a" has been used to designate both an alumina coating and a projecting section in figure 9. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: On page 6 line 17, the typo "Fig. 1m" is interpreted by the Examiner to be "Fig. 1."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wijenberg et al. (USPN 6,259,205).

In regards to claim 1, Wijenberg discloses in figure 2, an illuminant for a discharge lamp comprising a housing (31) constructed from a cylindrical transparent material having equal inner

radii at both open ends, a pair of discharge electrodes (4, 5) placed to oppose each other separated by a predetermined gap, and sealing spacers (32a, 32b) fixed to the housing at a condition where a discharge gas fills the discharge chamber at positions where the discharge electrodes are separated by a predetermined gap (Ea).

Wijenberg is silent to the exact method of adjusting the sealing spacers.

However, Wijenberg teaches that a gap distance Ea has a required distance, and although silent to the exact method of adjusting, one of ordinary skill can see that the spacer must be moved along the axial direction of the housing to adjust the gap Ea.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct an illuminant for a discharge lamp comprising all the recited limitations of claim 1, especially wherein the fixing position of the sealing spacer is adjustable along the axial direction of the housing, since it is well known in the art that a predetermined gap distance for an illuminant discharge lamp is required to be extremely accurate and small adjustments will be required in some cases.

The Examiner notes that the claim limitation "...inserted from both ends of said housing into said housing..." is drawn to a process of manufacturing, which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wijenberg et al. (USPN 6,259,205; "Wijenberg") in view of Minamikata et al. (USPN 5,331,249; "Minamikata").

In regards to claim 2, Wijenberg discloses in figure 2, an illuminant for a discharge lamp comprising a housing (31) constructed from a cylindrical transparent material having equal inner radii at both open ends, a pair of discharge electrodes (4, 5) placed to oppose each other separated by a predetermined gap, and sealing spacers (32a, 32b) fixed to the housing at a condition where a discharge gas fills the discharge chamber at positions where the discharge electrodes are separated by a predetermined gap.

Wijenberg is silent to the exact method of adjusting the sealing spacers, and the discharge electrodes each of which has an outer radius approximately equal to or slightly smaller than the inner radius of the housing.

However, Wijenberg teaches that a gap distance Ea has a required distance, and although silent to the exact method of adjusting, one of ordinary skill can see that the spacer must be moved along the axial direction of the housing to adjust the gap Ea. Further, Minamikata teaches in figure 4 that electrodes (6) are slightly smaller than the inner radius of the housing, and this configuration lowers the discharge maintaining voltage and energy loss is decreased.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct an illuminant for a discharge lamp comprising all the recited limitations of claim 1, especially wherein the fixing position of the sealing spacer is adjustable along the axial direction of the housing, since it is well known in the art that a predetermined gap distance for an illuminant discharge lamp is required to be extremely accurate and small adjustments will be required in some cases. Further, Minamikata teaches that the electrodes,

which are slightly smaller than the inner radius of the housing, lowers the discharge maintaining voltage and energy loss is decreased.

The Examiner notes that the claim limitation "...said discharge electrodes having been inserted from both ends of said housing into said housing..." is drawn to a process of manufacturing, which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

In regards to claim 3, Wijenberg teaches all of the limitations recited in claim 1 (above).

Wijenberg is silent to a plate-like section for loading an additive material being formed on the discharge electrode.

However, Minamikata teaches in figures 2a and 2c, a plate-like section (11) is formed on the discharge electrode.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct an illuminant for a discharge lamp according to claim 1 (above), further wherein a plate-like section is formed on the discharge electrode, since Minamikata teaches that this configuration lowers the discharge maintaining voltage and energy loss is decreased.

The Examiner notes that the claim limitation "...for loading an additive material..." is drawn to a process of manufacturing, which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process

limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113).

In regards to claims 4 and 5, Wijenberg and Minamikata teach all of the limitations recited in claims 1 and 2 (above).

Wijenberg is silent to a projection section for discharge start-up is provided on the discharge electrode.

However, Minamikata teaches in figures 1a and 1b, a discharge tube wherein a projecting section (6a) is provided on the discharge electrode for discharge start-up. Minamikata further teaches that this configuration lowers the discharge maintaining voltage and energy loss is decreased.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct an illuminant for a discharge lamp according to claims 1 and 2 (above), further wherein a projection section for discharge start-up is provided on the discharge electrode, since Minamikata teaches that this configuration lowers the discharge maintaining voltage and energy loss is decreased.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (703) 305-7198. The examiner can normally be reached on 7.30 - 4:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

pjm
January 16, 2003

Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800